

WHAT IS CLAIMED AS NEW AND DESIRED TO BE PROTECTED BY LETTERS
PATENT OF THE UNITED STATES OF AMERICA, IS:

1. An inflation valve assembly for facilitating the inflation
5 of an inflatable article, comprising:

an annular flange member having a first surface
portion which is adapted to be pneumatically sealed upon a
wall surface of the inflatable article;

a nipple portion, adapted to be connected to an ex-
10 ternal source of fluid pressure, integrally connected to said
first surface portion of said annular flange member and de-
fining a fluid passageway which extends through said annular
flange member for conducting pressurized air into the interi-
or of the inflatable article; and

15 a flapper valve member movably mounted upon a sec-
ond surface portion of said annular flange member between a
first **OPENED** position by means of which pressurized air can
be fluidically conducted into and out from the interior por-
tion of the inflatable article, and a second **CLOSED** position
20 by means of which pressurized air is prevented from being
fluidically conducted into and out from the interior portion
of the inflatable article.

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2. The inflation valve assembly as set forth in Claim 1, fur-
ther comprising:

a ring member integrally mounted upon said second
surface portion of said annular flange member; and

30 a valve seat formed upon an interior wall portion

of said ring member for mating with said flapper valve member when said flapper valve member is disposed at said **CLOSED** position.

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3. The inflation valve assembly as set forth in Claim 2, wherein:

10 said ring member has a substantially C-shaped configuration.

4. The inflation valve assembly as set forth in Claim 3, wherein:

15 said substantially C-shaped ring member has circumferentially spaced terminal end portions; and
 an end portion of said flapper valve member is fixedly mounted upon said second surface portion of said annular
20 flange member between said terminal end portions of said substantially C-shaped ring member.

25 5. The inflation valve assembly as set forth in Claim 4, wherein:

 said flapper valve member is fabricated from a suitable rubber composition.

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6. The inflation valve assembly as set forth in Claim 5,
wherein:

said flapper valve member is pivotally mounted upon
said second surface portion of said annular flange member be-
5 tween said first and second **OPENED** and **CLOSED** positions.

7. The inflation valve assembly as set forth in Claim 6,
10 wherein:

a living hinge section is defined upon said flapper
valve member immediately adjacent to said end portion of said
flapper valve member so as to permit said flapper valve mem-
ber to be pivotally mounted upon said second surface portion
15 of said annular flange member between said first and second
OPENED and **CLOSED** positions.

20 8. The inflation valve assembly as set forth in Claim 4, fur-
ther comprising:

means for fixing said end portion of said flapper
valve member upon said second surface portion of said annular
flange member between said terminal end portions of said sub-
25 stantially C-shaped ring member.

9. The inflation valve assembly as set forth in Claim 8,
30 wherein:

said means for fixing said end portion of said

flapper valve member upon said second surface portion of said annular flange member between said terminal end portions of said substantially C-shaped ring member comprises a fixation bar extending in a chordwise manner between said terminal end portions of said substantially C-shaped ring member.

10. The inflation valve assembly as set forth in Claim 9, further comprising:

detent means, defined upon opposite end portions of said fixation bar, for engaging said flapper valve member as said flapper valve member is moved from said second **CLOSED** position to said first **OPENED** position so as to retain said flapper valve member at said first **OPENED** position in order to permit inflation of the inflatable article by the external source of fluid pressure.

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11. In combination, an inflatable article and an inflation valve assembly for facilitating the inflation of the inflatable article, comprising:

an inflatable article;
an annular flange member having a first surface portion pneumatically sealed upon a wall surface of said inflatable article;

a nipple portion, adapted to be connected to an external source of fluid pressure, integrally connected to said first surface portion of said annular flange member and defining a fluid passageway which extends through said annular

flange member for conducting pressurized air into the interior of said inflatable article; and

5 a flapper valve member movably mounted upon a second surface portion of said annular flange member between a first **OPENED** position by means of which pressurized air can be fluidically conducted into and out from said interior portion of said inflatable article, and a second **CLOSED** position by means of which pressurized air is prevented from being fluidically conducted into and out from said interior portion
10 of said inflatable article.

12. The combination as set forth in Claim 11, further comprising:
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a ring member integrally mounted upon said second surface portion of said annular flange member; and

a valve seat formed upon an interior wall portion of said ring member for mating with said flapper valve member
20 when said flapper valve member is disposed at said **CLOSED** position.

25 13. The combination as set forth in Claim 12, wherein:

said ring member has a substantially C-shaped configuration.

30 14. The combination as set forth in Claim 13, wherein:

said substantially C-shaped ring member has circum-

ferentially spaced terminal end portions; and

an end portion of said flapper valve member is fixedly mounted upon said second surface portion of said annular flange member between said terminal end portions of said substantially C-shaped ring member.

15. The combination as set forth in Claim 14, wherein:

said flapper valve member is fabricated from a suitable rubber composition.

16. The combination as set forth in Claim 15, wherein:

said flapper valve member is pivotally mounted upon said second surface portion of said annular flange member between said first and second **OPENED** and **CLOSED** positions.

17. The combination as set forth in Claim 16, wherein:

a living hinge section is defined upon said flapper valve member immediately adjacent to said end portion of said flapper valve member so as to permit said flapper valve member to be pivotally mounted upon said second surface portion of said annular flange member between said first and second **OPENED** and **CLOSED** positions.

18. The combination as set forth in Claim 14, further comprising:

means for fixing said end portion of said flapper valve member upon said second surface portion of said annular flange member between said terminal end portions of said substantially C-shaped ring member.

19. The combination as set forth in Claim 18, wherein:

said means for fixing said end portion of said flapper valve member upon said second surface portion of said annular flange member between said terminal end portions of said substantially C-shaped ring member comprises a fixation bar extending in a chordwise manner between said terminal end portions of said substantially C-shaped ring member.

20. The combination as set forth in Claim 19, further comprising:

detent means, defined upon opposite end portions of said fixation bar, for engaging said flapper valve member as said flapper valve member is moved from said second **CLOSED** position to said first **OPENED** position so as to retain said flapper valve member at said first **OPENED** position in order to permit inflation of the inflatable article by the external source of fluid pressure.

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21. The combination as set forth in Claim 11, wherein:
said inflatable article comprises an inflatable
bladder for enclosure within a cargo air bag.

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22. The combination as set forth in Claim 21, wherein:
said cargo air bag, enclosing said inflatable blad-
der, comprises at least one paper ply.

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23. The combination as set forth in Claim 11, wherein:
said inflatable article comprises an inflatable
15 bladder which comprises a cargo air bag per se.

24. The combination as set forth in Claim 23, wherein:
20 said inflatable bladder may be fabricated from a
material selected from the group comprising a plastic mater-
ial, VALERON®, polyethylene with woven NYLON®, and a single-
ply KRAFT® paper laminated with polyethylene.

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